ALTERNATIVES

Two alternatives are assessed in this GMP revision; alternative A, the no- action alternative and alternative B, the preferred alternative. The no- action alternative is the current management direction for the Tallgrass Prairie National Preserve, and is the selected alternative as discussed in the 2000 GMP. The preferred alternative is the proposed revision to the GMP. Because many of the actions described in the 2000 GMP have yet to be implemented, including the construction of the new visitor center and administrative and maintenance facilities, the reader is referred to the original GMP for a description of the baseline environmental conditions.

ALTERNATIVE A: NO-ACTION ALTERNATIVE

The no- action alternative would implement the preferred alternative from the 2000 GMP. Selection of the no- action alternative would represent continuation of the current management direction, which has not been implemented.

Under the no- action alternative, the 2000 GMP would not be revised, and a new visitor center, administrative, and maintenance facilities would be constructed for Tallgrass Prairie National Preserve in accordance with the direction provided in the 2000 GMP.

The 2000 GMP designates 82 acres as a visitor information/orientation management area (see figure 2) near the intersection of SH 177 and U.S. 50. The site is north of County Road (CR) 277. The parcels (owned by The Nature Conservancy) available for construction are currently undeveloped and generally undisturbed. Please see appendix E for an analysis of possible construction sites.

Site Development / New Facilities

New facilities construction for the preserve would include a visitor center, administrative headquarters, a maintenance facility, and a transportation system support facility.

The visitor center would include a visitor orientation and information desk, room for interpretive exhibits, a small auditorium, a book sales area, a multipurpose room, restrooms, and other storage and support rooms. Visitor parking, an amphitheater, and space for exhibits would also be provided outdoors. A transportation staging area (for boarding and exiting shuttle buses to the historic Spring Hill / Z Bar Ranch Headquarters and perhaps into the preserve) would be associated with the visitor center.

The administrative headquarters would include offices for Tallgrass Prairie National Preserve and partnership staff, museum collections work space, and miscellaneous other storage and work spaces for the preserve. Parking for staff and others conducting business at the administrative headquarters would be also provided.

The maintenance facility would include shops (for carpentry, electrical, and plumbing work, etc.), a fire fighting equipment cache, vehicle storage space, hazardous materials storage space, and other miscellaneous storage and support areas.

The transportation system support area would include a parking area for shuttle vehicles and workers, vehicle maintenance and wash areas, two offices, a hazardous materials area, and other support areas.

Utility support for the new facilities would include a connection to the preserve's new potable water delivery system, electrical supply lines, telephone and other communications connections, natural gas, stormwater disposal, and a connection to the Strong City sewage treatment facility.

Site Analysis

The site for the new facilities is undeveloped, generally undisturbed, and is covered in tallgrass prairie vegetation. The landscape slopes gently toward the northeast, with exposed bedrock in some areas.

To the north of the triangle- shaped site is a drainage swale that separates it from the privately owned St. Anthony Cemetery. To the east, at the bottom of the slope, is the Fox Creek bottomland and the Bottomland Trail. To the southwest is a gravel county road. Prevailing winds are from the southwest, with winter winds from the northwest (figure 3).

There are excellent views to the east and northeast, and relatively poor views to the south and west.

ALTERNATIVE B: PREFERRED ALTERNATIVE

The preferred alternative consists of revising two management areas from the 2000 GMP and a site development study for construction of a new visitor center, administrative, and maintenance facilities.

General Management Plan Revision

The 2000 GMP proposed two parcels for construction of the new visitor center, administrative, and maintenance facilities, to be located within management areas designated as the Flint Hills ranching legacy area. This area serves as the primary focal point for interpretation of ranching in the Flint Hills region, and as such, is not compatible with the proposed construction of the new visitor center, administrative, and maintenance facilities. Therefore, as part of the preferred alternative, a revision to the 2000 GMP is proposed to redesignate these parcels as the visitor information and orientation area. The visitor information and orientation area is the visitor focal point and the first stop for interpretation of preserve resources and orientation to the preserve. The two parcels total approximately 13 acres.

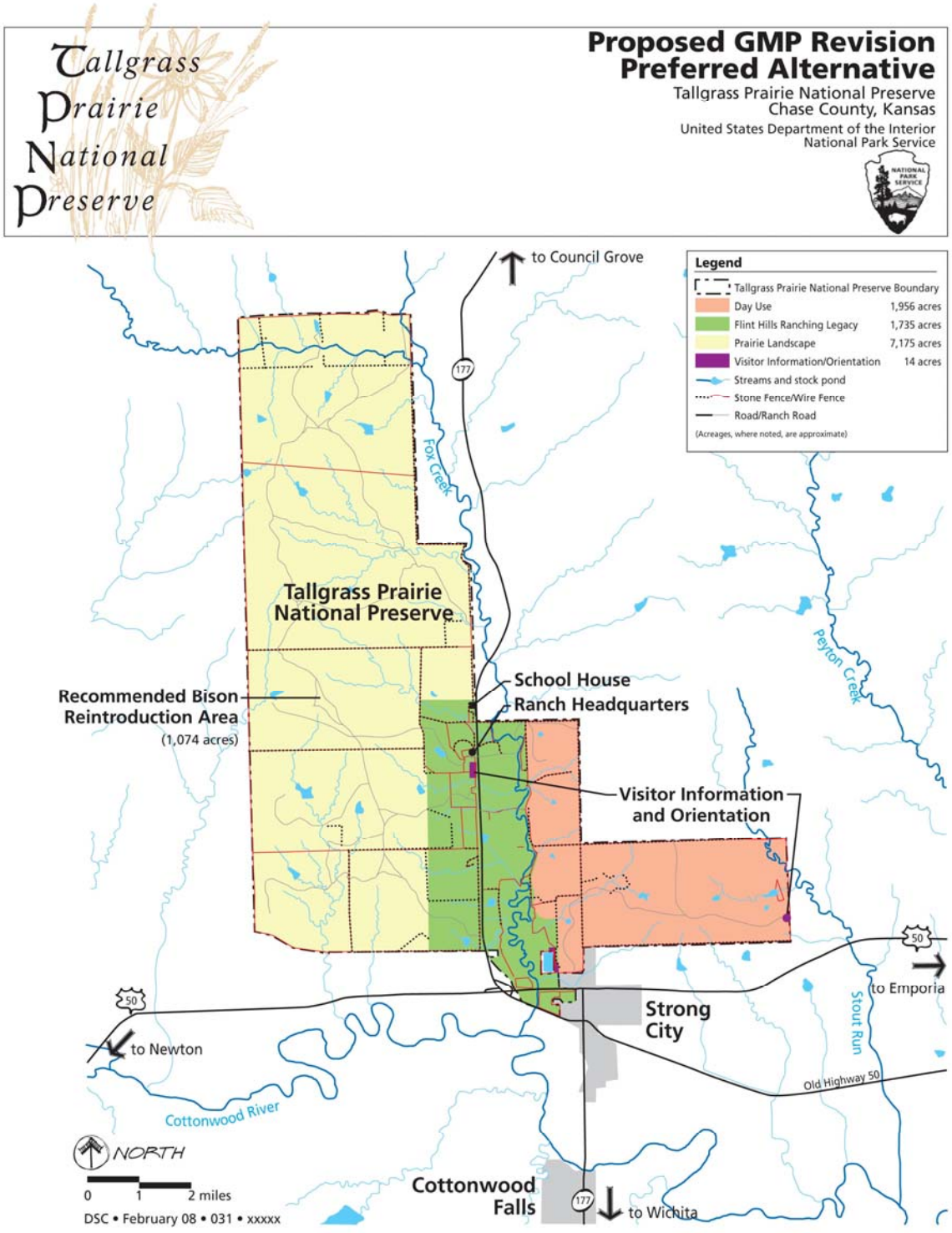

FIGURE 3. PROPOSED GMP REVISION

Also as part of the GMP revision, approximately 81 acres designated as the visitor information and orientation area in the 2000 GMP (north of the intersection of SH 177 and U.S. 50) would be redesignated as the Flint Hills ranching legacy area (figure 3). However, the Flint Hills ranching legacy area would also be reduced by approximately 13 acres through redesignation as a visitor information and orientation area. The Flint Hills ranching legacy area would increase from 1,667 acres to 1,735 acres, a net increase of approximately 68 acres. There is one acre along the county road on the eastern boundary of the park designated Visitor Use and Information area that the 2000 GMP envisioned to be used for a pull- out and informational kiosk. Therefore, the total Visitor Information and Orientation area acreage proposed as a part of this GMP revision would be 14 acres, a net reduction of 68 acres.

The preferred alternative includes the proposed redesignation of management areas established in the 2000 GMP. This GMP revision, therefore, analyzes the effects of the decision to change the management area designation of an 81- acre parcel northeast of the intersection of U.S. 50 and SH 177 from "available for construction of major preserve facilities" to "no major construction allowed within this area."

Site Development/New Facilities

Under the NPS preferred alternative, a new combined visitor information and administrative center and a separate maintenance facility would be constructed on within two different parcels located within the preserve boundary (figure 4). The visitor information and administrative center would be located on approximately 7.0 acres south of the ranch headquarters along the west side of SH 177. The maintenance facilities would be located on approximately 6.0 acres along CR 227, east of the sewage lagoons. Space estimates for the buildings and structures is estimated at 1.7 acres for the combined visitor information and administrative center and 2.3 acres for the maintenance facilities (see table 2 in chapter 1). The proposed management areas are slightly larger to provide flexibility in layout and location of facilities, as necessary.

New facilities for the preserve would include a visitor center, administrative headquarters and associated parking; and a maintenance facility. The visitor center and administrative headquarters would be colocated near the historic Spring Hill / Z Bar Ranch Headquarters, while the maintenance facilities would be located east of the sewage lagoons.

The visitor center would include a visitor orientation and information desk, room for interpretive exhibits, a small auditorium, a book sales area, a multipurpose room, a small museum collections handling and storage area, restrooms, and other storage and support rooms. Visitor parking, an amphitheater, and space for exhibits would be provided outdoors. A transportation staging area (for boarding and exiting shuttle buses) would be associated with the visitor center.

The administrative headquarters would include offices for Tallgrass Prairie National Preserve, The Nature Conservancy staff, and Kansas Park Trust, and, and miscellaneous other storage and work spaces for preserve operations. Parking for staff and others conducting business at the administrative headquarters would be provided.

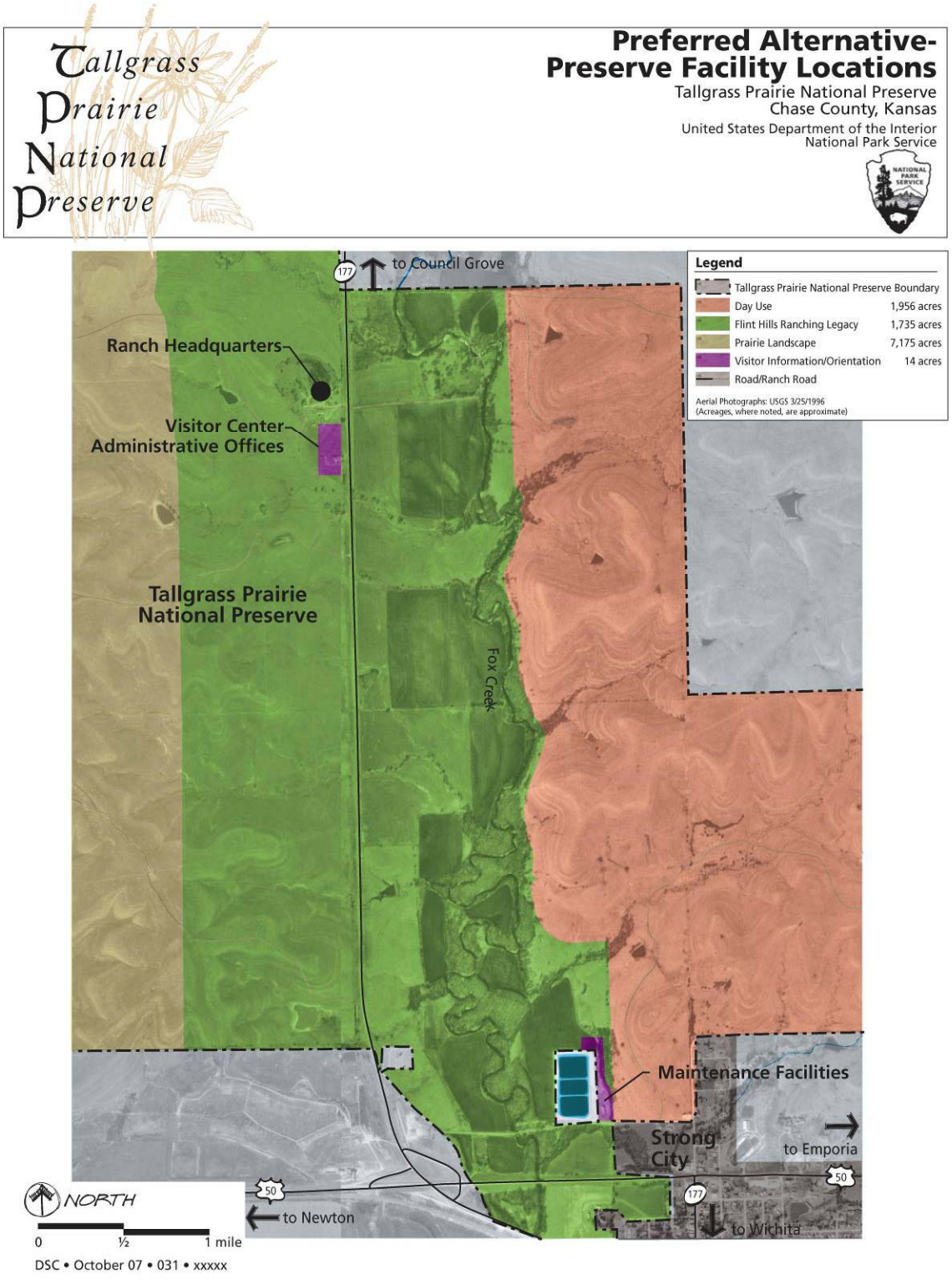

FIGURE 4. PROPOSED PRESERVE FACILITY LOCATIONS

The maintenance facility would include shops (for carpentry, electrical, and plumbing, etc.), a fire fighting equipment cache, vehicle storage space, hazardous materials storage space, and other miscellaneous storage and support areas. This area would also include a parking and storage area for shuttle vehicles, vehicle maintenance and wash areas, a fueling area, and other support areas.

Utility support for the new facilities would include a connection to the preserve's new potable water delivery system, electrical supply lines, telephone and other communications connections, natural gas, alternative fuels service, stormwater disposal, and a connection to the Strong City sewage treatment facility.

Approximately 4.4 acres would be needed to construct the visitor information and administrative center and associated parking, and approximately 2.8 acres would be required for the maintenance facilities. The remaining portions of the parcels (2.6 and 3.2 acres, respectively) would be used for setbacks and landscaping. Additional space modeling details are provided in the "Development Program" section and appendix B.

Site Analysis

The parcels for the new facilities were previously developed and/or disturbed. A site analysis of the parcels for the new facilities is depicted in figure 5. The visitor information and administrative center parcel is in the area of a mid- 1930s ranch structures that have been removed. It is located approximately 2 miles north of the intersection of SH 177 and U.S. 50, along the west side of SH 177. The ground cover is generally described as "go back" prairie, with intact native prairie along the creek. The site slopes southward and has good solar exposure. Prevailing winds are generally from the south and southwest, and winter winds are from the northwest. There is adequate space for construction outside the floodplain, and there are no wetlands. Visitors would have access to the east side of the preserve via an existing cattle underpass below SH 177. There are good views to the east, south, and north of the ranch headquarters, and relatively good, but limited, views to the west.

The maintenance facility site is located east of and adjacent to the sewage lagoons. The ground cover is previously disturbed from construction of the sewage lagoons and an existing storage structure. The facilities can be constructed outside the floodplain. Views of the site from the day use area are shielded by trees. The site can be accessed from the east or west along CR 227, and is 0.5 mile from Strong City.

Design requirements for the proposed facilities that would reduce visual and other potentially adverse impacts are detailed below.

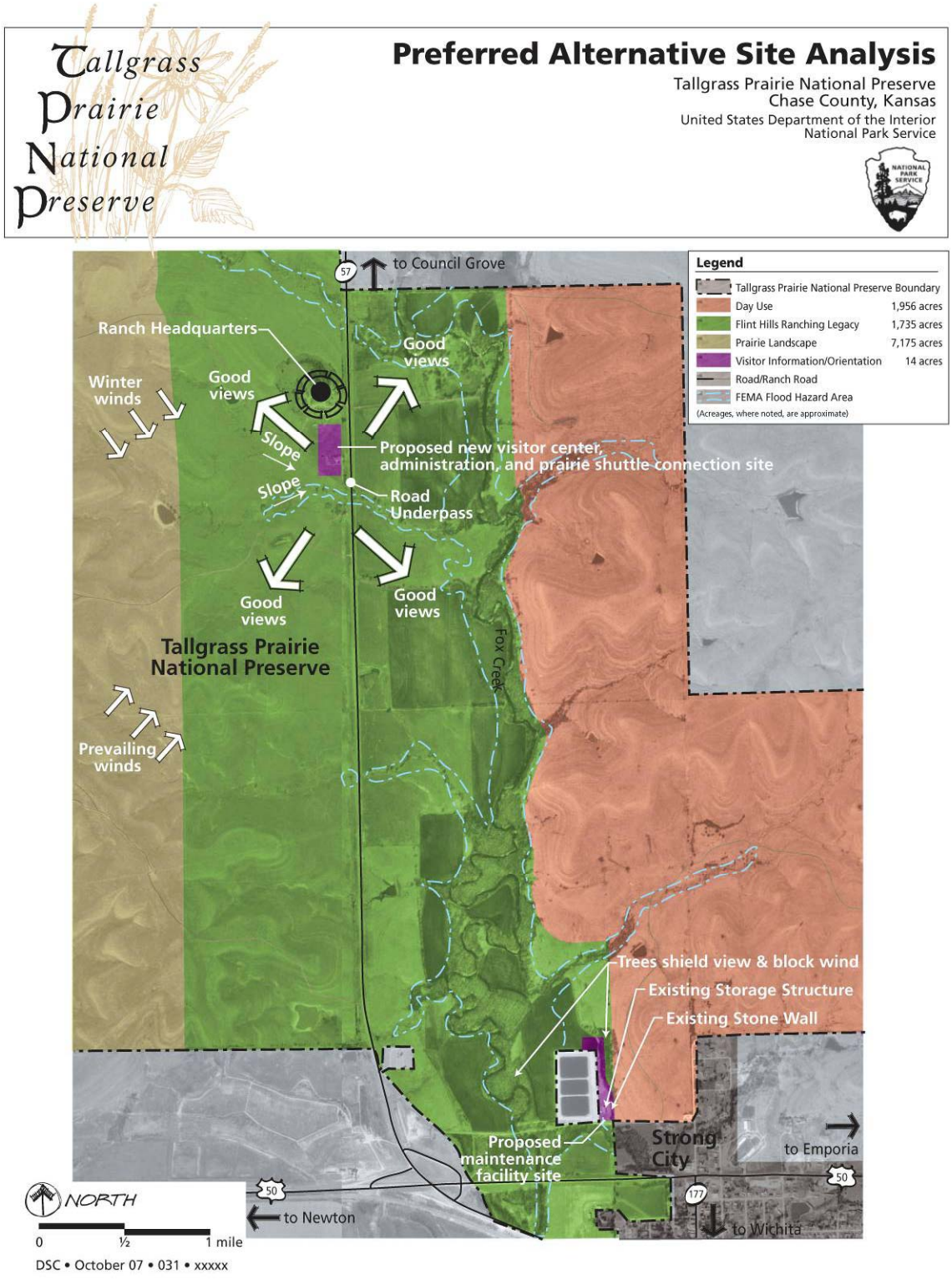

FIGURE 5. PREFERRED ALTERNATIVE SITE ANALYSIS

MITIGATION MEASURES FOR THE NO-ACTION AND PREFERRED ALTERNATIVES

The mitigation measures described in this section would apply to the preferred alternative. Impact analyses in the "Environmental Consequences" section are based on these mitigation measures being fulfilled.

Once a preferred site for the new facilities is approved, and before planning and design of the new facilities proceeds, a site visit by a qualified hydrologist would be conducted to ensure that floodplain parameters are fully understood and floodplain guidelines are met as outlined in the "Floodplains" section, and as specified by NPS Director's Order – 77- 2: *Floodplain Management* (NPS 2003a). The 100- year and 500- year floodplain would be mapped and delineated, and all construction would be located outside floodplain areas (Directors Order – 77- 2*: Floodplain Management*).

A stormwater pollution prevention plan would be prepared, as required by the National Pollutant Discharge Elimination System (NPDES) permit process. This plan would outline specific measures for prevention, minimization, and mitigation of soil erosion and water pollution during construction activities. The construction contractor would be responsible for developing a NPS- approved plan. The plan would be available for public and agency inspection at the construction site. A Kansas Department of Health and Environment authorization for stormwater runoff would be required. A state water pollution control permit would also be required if facilities are not directed to a city sanitary sewer.

Land clearing and non- building construction activities would be scheduled, to the greatest extent practicable, to avoid the Topeka shiner spawning season.

If, during construction, any previously unknown archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed in consultation with the Kansas state historic preservation office (SHPO) and other appropriate consulting parties, including affiliated tribes. Should inadvertent discoveries of human remains be uncovered during construction, all work would be halted in the discovery area, the site secured, and preserve staff would consult according to 36 CFR 800.13, and as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990. In compliance with this act, the National Park Service would also notify and consult concerned American Indian tribal representatives for the proper treatment of human remains, funerary, and sacred objects should these be discovered during the project.

Construction zones would be identified and fenced with temporary fencing or a similar material prior to construction activity. Fencing would define the construction zone and confine activity to the minimum area required. Protection measures would be clearly stated in construction specifications and workers would be instructed to avoid areas beyond fences.

Measures to control dust and erosion during construction would be implemented and would include:

- Use of water sprinkling on dry soils.
- Construct silt fences and sedimentation basins.
- Stabilize soils during and after construction with specially designed fabrics, certified straw, or other materials.
- Cover haul trucks.
- Revegetate disturbed areas with native species as soon as possible after construction.

To maximize restoration after construction activities are completed, the following measures would be implemented:

- Salvage topsoil from construction areas for reuse during restoration on disturbed areas to ensure revegetation, as appropriate.
- Salvage native vegetation for subsequent replanting in disturbed areas, as appropriate.
- Monitor revegetation success following construction and implement remedial and control measures, as needed.

To prevent the introduction of and to minimize the spread of nonnative vegetation and noxious weeds, the following measures would be implemented:

- Minimize soil disturbance.
- Limit vehicle parking to existing roads, parking areas, or previously disturbed areas.
- Obtain all fill, rock, or additional topsoil from the project area, if possible.

The design team would consult with the Kansas Department of Transportation (KDOT), county engineers, and other entities, as appropriate, before beginning the design phase to discuss access and egress issues related to the new facilities. Consulting with these parties before design begins would ensure that road and highway safety issues are considered and that any safety- related road modifications (turn lanes, traffic signals, or signs, etc.) are designed in concurrence with the new preserve facilities.

The design team would consult with the USFWS during design and construction to ensure that indirect effects, primarily erosion and runoff into Fox Creek and its tributary would not adversely affect the Topeka shiner. At a minimum, a retention pond would be constructed to capture runoff from parking areas.

Once the design for the facilities is completed, the National Park Service may be required to obtain a general construction stormwater permit for authorization to discharge stormwater associated with construction activity under the NPDES

The design team would also consult with the Kansas SHPO during the design phase to ensure that adverse effects to the cultural landscape from construction of the visitor center,

administrative, and maintenance facilities are minimized, reduced, or avoided through appropriate design and layout.

The design team would incorporate the following design treatments and criteria:

1. The visitor center/administrative facility should reflect the rural vernacular architecture of the ranch Headquarters in footprint, scale, massing, and roofline.

2. The visitor center and administrative facilities should be built with visually compatible materials similar to those used during the NHL period of significance, have a simple façade, with few reflective surfaces. Consider period- appropriate materials such as metal and local stone. The use of these materials should reflect the historic craftsmanship in finish and styling. Within budget constraints, native limestone could be limited to architectural details. The overall use of materials would provide a thematic tie to historic structures.

3. The building can be sheltered from view using low earthen berms and vegetation screens. Berms should be moved away from the building and covered with natural materials such as prairie grasses and forbs.

4. HVAC and other utilities should be hidden to the maximum degree possible.

5. Facilities and building materials should be designed to be defensible against and resistant to wildland fires. Consideration should be given to using facility access roads and parking areas as firebreaks. The design should also take into account prevailing winds to reduce the impact of snow drifts in winter and to take advantage of cooling breezes.

6. Facilities should be landscaped with native prairie plants, primarily grasses and forbs. Landscape plants should only require a minimum amount of water in the first two years to become established. Retain as much existing vegetation, especially trees, as possible.

7. Views from the building should be oriented toward the south and east (toward the tallgrass prairie and Fox Creek). Views of the new facility from the historic ranch headquarters should be minimized, so as to reduce the visual intrusion of the contemporary facility on the cultural landscape associated with the NHL. The building should be sited so that it is visible to visitors approaching the site.

8. Parking areas should use as soft and permeable a surface as possible to reduce visual intrusions and capture runoff. Brightness and color of the paving materials should be factored into the overall goal of reducing visibility and reflection of the parking area. Parking areas and access roads should be simple and geometric to reflect vernacular parking arrangements typically found in rural landscapes.

9. Of all the new facilities and associated uses, the reflective windshields of parked vehicles have the most potential to be seen across long distances. Views of the parking lot and parked vehicles from the ranch headquarters and other key viewpoints must be minimized by using topography and vegetation.

10. The NPS guide, *Guiding Principles of Sustainable Design* (NPS 1994), will be used to establish sustainability goals for the project, and the project should strive for, at a minimum, a Silver LEED certification rating on new construction.

11. Modifications will be made to the SH 177 in order to provide safe egress to the proposed new visitor information and orientation area site. Site circulation should consider linkages between the highway, parking areas and Preserve trail system. Minimize the number of times visitors have to enter and exit the highway.

12. Visitor center and administrative facilities will be collocated and maximize efficiency of shared amenities as much as possible in order to reduce the footprint of the development.

13. Lighting in and around new facilities will be "best available design" and emphasize design for low impact.

14. Design bus parking areas so the exhaust from buses points away from visitor circulation areas. Parking design should also take into consideration screening and protection from wind and blowing snow.

15. Other construction- related permits, as necessary.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality. In order for an alternative to be environmentally preferred, it must meet the criteria established in section 101(b) of NEPA and subsequently adopted by the National Park Service. An alternative must meet the following criteria to be considered an environmentally preferred alternative:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Each of the alternatives meets criteria 1, 3, and 5 equally well.

Although each of the alternatives meets criterion 2 in terms of ensuring a safe, healthful, and productive surrounding, the preferred alternative has a slight advantage in ensuring an esthetically and culturally pleasing surrounding by placing the visitor center in a location that affords better views of the surrounding prairie and historic corrals and developing the maintenance facility in an area removed from visitor activities.

The development of visitor facilities according to the 2000 GMP would best preserve important historic and cultural aspects of our national heritage (criterion 4), although alternative B could, to a lesser degree, provide for preservation of our national heritage. Construction of new facilities under alternative B would have adverse impacts on cultural resources by placing new structures within a cultural landscape. Thoughtful siting, implementation of mitigation measures in the design of the new facilities, and the use of a previously disturbed site would lessen the degree of adverse impacts.

Though each of the alternatives would meet criterion 6, alternative B has a slight advantage in minimizing the use of depletable resources. Each alternative would strive to construct the most sustainable facilities possible, adhering to NPS guidelines for obtaining, at a minimum, silver LEED certification on new construction. In alternative B, an existing pole shed would be incorporated into the new maintenance facility to the greatest degree possible, and reduce the use of fossil fuels by locating the visitor center within walking distance of the historic ranch headquarters, one of the primary visitor attractions. The no- action alternative may increase the amount of traffic on adjacent roadways because of the location of primary visitor services away from the ranch headquarters.

The National Park Service has determined the environmentally preferable alternative is the preferred alternative (alternative B). Although some specific actions of the other alternative might achieve levels of protection for certain cultural resources better than alternative B, in aggregate, this alternative would best achieve the six prescribed conditions listed above.

ALTERNATIVES CONSIDERED BUT DISMISSED FROM DETAILED ANALYSIS

Ten alternative sites for the new NPS facilities were originally identified and evaluated by the planning team. The team evaluated the original sites against 18 criteria ranging from "convenient access for visitors" to "impacts on neighbors." Later, three additional sites suggested by the public were evaluated against the same criteria. Finally, in 2006, a new alternative was investigated based on input from The Nature Conservancy and the Kansas Park Trust. This final alternative is carried forward for detailed analysis; all others have been dismissed. Appendix E describes in detail the criteria and process used to evaluate and narrow the sites down to a select few, and the rationale for dismissing the various alternatives.

COMPARATIVE SUMMARY OF ALTERNATIVES

TABLE 3. ALTERNATIVE COMPARISON TABLE

Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
The no-action alternative would be implementation of the preferred alternative from the 2000 GMP. Selection of the no-action alternative would represent continuation of the current management direction, which has not been implemented. Under the no-action alternative, the 2000 GMP would not be revised, and the new facilities for Tallgrass Prairie National Preserve would be constructed in accordance with direction provided in the 2000 GMP on a parcel of land located just north of the intersection of SH 177 and U.S. 50. This site is owned by The Nature Conservancy. The parts of the site available for construction are undeveloped and generally undisturbed and within the visitor information and orientation area designated for new facilities by the 2000 GMP. New facilities for the preserve would include a visitor center, administrative headquarters, a maintenance facility, and a transportation system support facility.	The GMP revision would redesignate two parcels (totaling 13.0 acres) as visitor use and orientation management areas, which permits construction of facilities. A third 81-acre parcel northeast of the intersection of U.S. 50 and SH 177 would be redesignated as the Flint Hills ranching legacy area. Under the NPS preferred alternative, a new combined visitor center and administrative headquarters and a separate maintenance facility would be constructed on the two redesignated parcels within the preserve boundary. The visitor center and administrative headquarters would be located on approximately 7.0 acres located south of the ranch headquarters along the west side of SH 177. These facilities would occupy approximately 4.4 acres, including parking. The maintenance facilities would be located on 6.0 acres along CR 227, east of the sewage lagoons. These facilities would occupy approximately 2.8 acres.
<u>Meets Project Objectives?</u> **No.** The Nature Conservancy, a private nonprofit organization, owns the majority of Tallgrass Prairie National Preserve, and is a partner in the management of the preserve with the National Park Service. The management area designated for visitor and preserve operations facilities under the 2000 GMP is not compatible with The Nature Conservancy mission and objectives to preserve natural communities because a visitor center/administration facility would be constructed on pristine prairie.	<u>Meets Project Objectives?</u> **Yes.** The GMP revision would allow the National Park Service and The Natural Conservancy to meet their objectives to preserve the pristine prairie while accommodating visitors and providing opportunities for education. A visitor information center would provide the initial stop for visitors and allow them to orient themselves and plan their visit. It would also serve as a staging area for the public transportation system and for education and interpretation efforts. The administrative and maintenance facilities would provide adequate facilities to conduct and support preserve operations.

TABLE 4. IMPACT SUMMARY TABLE

Impact Topic	No-action Alternative	Preferred Alternative		
		Visitor Center and Administrative Site	Maintenance Site	Addition to Flint Hills Ranching Legacy Area
Historic Structures	- beneficial long-term, minor to moderate impacts - would contribute minor long-term and beneficial to cumulative impacts	- beneficial long-term minor to moderate impacts - would contribute negligible to minor long-term and beneficial to cumulative impacts	- beneficial, long-term, minor to moderate impacts - would contribute negligible to minor long-term and beneficial to cumulative impacts	- beneficial long-term negligible to minor impacts - would contribute negligible to minor long-term and beneficial to cumulative impacts
Archeology	- no or negligible impacts - would not contribute to cumulative impacts	- adverse site-specific long-term negligible to minor impacts - would contribute negligible long-term adverse cumulative impacts	- no impact - would contribute negligible long-term adverse cumulative impacts	- negligible impact - would contribute negligible long-term adverse cumulative impacts
Cultural Landscapes	- adverse long-term and minor impacts; beneficial long-term and minor impacts - would contribute minor adverse long-term cumulative impacts	- adverse long-term moderate impacts with mitigation measures - would contribute minor long-term and adverse to cumulative impacts	- adverse long-term minor impacts - would contribute minor long-term and adverse to cumulative impacts	- beneficial, long-term, negligible to minor, impact - would contribute minor long-term and adverse to cumulative impacts
Soils	- adverse short- and long-term and minor to moderate impacts - would contribute minor to moderate long-term and adverse to cumulative impacts	- adverse localized short- and long-term negligible to minor impacts - would contribute negligible long-term and adverse to cumulative impacts	- adverse localized short- and long-term negligible to minor impacts - would contribute negligible long-term and adverse to cumulative impacts	- beneficial localized long-term minor impacts - would contribute negligible to minor long-term and beneficial to cumulative impacts

TABLE 4. IMPACT SUMMARY TABLE

Impact Topic	No-action Alternative	Preferred Alternative		
		Visitor Center and Administrative Site	**Maintenance Site**	**Addition to Flint Hills Ranching Legacy Area**
Prime and Unique Farmlands	- no impact	- adverse site-specific short- and long-term moderate impacts - would contribute negligible adverse long-term impacts on regional level	- adverse site-specific short- and long-term moderate impacts - would contribute negligible adverse long-term impacts on regional level	- no impacts
Vegetation	- adverse short- and long-term minor to moderate impacts - would contribute minor short- and long-term adverse to cumulative impacts	- adverse site-specific short- and long-term minor impacts. - would contribute a negligible adverse long-term impact to cumulative impacts	- adverse site-specific short- and long-term negligible impacts. - would not contribute to cumulative impacts	- beneficial localized long-term minor to moderate impacts - would contribute negligible to minor long-term beneficial to cumulative impacts
Threatened and Endangered Species	- no impacts - would not contribute to cumulative impacts	- adverse short- and long-term negligible to minor impacts - with appropriate mitigation measures, would contribute negligibly to cumulative impacts	- adverse short-term negligible to minor impacts - with appropriate mitigation measures, would contribute negligibly cumulative impacts	- no impacts - would not contribute to cumulative impacts

TABLE 4. IMPACT SUMMARY TABLE

Impact Topic	No-action Alternative	Preferred Alternative		
		Visitor Center and Administrative Site	Maintenance Site	Addition to Flint Hills Ranching Legacy Area
Wildlife	- adverse short- and long-term minor to moderate impacts - would contribute minor short- and long-term adverse to cumulative impacts	- adverse site-specific localized short-term negligible to minor impacts and long-term negligible impacts - would contribute negligible long-term and adverse to cumulative impacts	- adverse localized short- and long-term negligible impacts - would contribute negligible long-term and adverse to cumulative impacts	- beneficial long-term negligible to minor impacts - would contribute long-term, negligible, adverse impact where construction is proposed, and long-term, negligible to minor, beneficial impact with the addition of acreage in the Flint Hill ranching legacy area cumulative impacts
Visitor Experience / Appreciation	- beneficial long-term major impacts; adverse long-term minor impacts - would contribute major long-term beneficial to cumulative impacts	- beneficial long-term moderate impacts - would contribute a beneficial long-term and moderate impact to cumulative impacts	- beneficial long-term negligible to minor impact - would contribute a beneficial long-term negligible to minor beneficial impact to cumulative impacts	- beneficial long-term negligible impacts - would contribute negligibly to cumulative impacts
Scenic Quality	- adverse long-term minor impacts with thoughtful siting and design - would contribute a minor long-term adverse impact to cumulative impacts	- adverse long-term moderate impacts with thoughtful siting - would contribute a minor to moderate long-term and adverse impact to cumulative impacts	- adverse long-term negligible impacts - would not contribute to cumulative impacts	- beneficial long-term negligible impacts - would not contribute to cumulative impacts

TABLE 4. IMPACT SUMMARY TABLE

Impact Topic	No-action Alternative	Preferred Alternative		
		Visitor Center and Administrative Site	**Maintenance Site**	**Addition to Flint Hills Ranching Legacy Area**
Water Quality	- adverse long-term minor impacts - would contribute a minor long-term adverse impact to cumulative impacts	- adverse short- and long-term minor impacts - would contribute a negligible to minor long-term and adverse impact to cumulative impacts	- adverse short- and long-term negligible to minor impacts - would contribute a negligible to minor long-term and adverse impact to cumulative impacts	- beneficial long-term negligible impacts - would not contribute to cumulative impacts
Floodplains	- no impact - would not contribute to cumulative impacts	- no impact - would not contribute to cumulative impacts	- no impact - would not contribute to cumulative impacts	- no impact - would not contribute to cumulative impacts
Preserve Operations	- Beneficial minor to moderate long-term impacts - would contribute minor to moderate long-term beneficial impacts to cumulative impacts	- beneficial long-term minor to moderate impacts - would contribute long-term minor to moderate and beneficial effects to cumulative impacts	- beneficial long-term minor to moderate impacts - would contribute long-term minor to moderate and beneficial effects to cumulative impacts	- no impacts - would not contribute to cumulative impacts